



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,497	07/18/2001	Shu Yamaguchi		4197
2292	7590	10/17/2003		
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
			EXAMINER	
			DOUYON, LORNA M	
			ART UNIT	PAPER NUMBER
			1751	

DATE MAILED: 10/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/889,497

Applicant(s)

YAMAGUCHI ET AL.

Examiner

Lorna M. Douyon

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

Art Unit: 1751

1. This action is responsive to the amendment filed on July 23, 2003.
2. The rejection of claims 2 and 4 under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kubota et al (US Patent No. 6,376,453) is withdrawn in view of applicants' submission of a verified translation of the foreign priority documents.
3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Dijk et al.(WO 94/02573), hereinafter "Van Dijk" for the reasons set forth in the office action in paper number 6. In addition, Van Dijk teaches potassium salts of anionic surfactants (see page 12, 1<sup>st</sup> full paragraph), and nonionic surfactants which include condensation products of alcohols having an alkyl group containing from about 9 to 15 carbon atoms with from about 4 to 25 moles of ethylene oxide per mole of alcohol; and condensation products of propylene glycol with ethylene oxide (see page 14, 2<sup>nd</sup> paragraph). Other builders include sodium or potassium silicate (see page 20, lines 1-16).
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 1751

5. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 is indefinite because the limitation “a total sum of the sodium carbonate and the alkali metal silicate is 19% or more” is inconsistent with claim 1 or claim 2 which recites “15% or less by weight of a water-soluble inorganic salt”.

6. Claims 2, 9 and 10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wilkinson et al. (US Patent No. 5,698,510), hereinafter “Wilkinson”.

Wilkinson teaches a granular detergent composition which generally have a particle size distribution in the range of 250 to 1200 micrometers and has a bulk density of at least 650 g/l (see col. 13, lines 43-46). In Example 7, Wilkinson teaches a detergent composition comprising anionic surfactant and nonionic surfactant having a weight ratio of 1:4 or 3.5:10 with no sodium carbonate (see col. 17, line 55 to col. 18, line 8). In Example 8, Wilkinson teaches a detergent composition comprising anionic surfactant and nonionic surfactant having a weight ratio of 1:3.3 or 3:10 with 15wt% sodium carbonate (see col. 18, lines 11-34). In Example 9, Wilkinson teaches a detergent composition comprising anionic surfactant and nonionic surfactant having a weight ratio of 1:3 or 2.5:10 with 10wt% sodium carbonate (see col. 18, lines 37-54). Even though Wilkinson does not explicitly disclose the total summation of a product mass base

Art Unit: 1751

frequency  $W_i$  and a dissolving rate  $V_i$  greater than or equal to 95% as that recited, it would be inherent in the detergent base powder of Wilkinson to exhibit the recited characteristic because same detergent composition having the same ingredients, proportions and bulk density have been utilized. Hence, Wilkinson anticipates the claims.

7. Claims 1, 9 and 10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Appel et al. (US Patent No. 5,998,357), hereinafter "Appel".

Appel teaches a detergent base powder having a bulk density of 720 g/liter and comprises 21.2 wt% sodium primary alcohol sulphate, 3.3 wt% sodium soap (a total of 24.5 anionic surfactant), 10.6 wt% nonionic surfactants and 4.1 wt% sodium carbonate (see Example 1 under col. 8, line 49 to col. 9, line 23). Even though Appel does not explicitly disclose the total summation of a product mass base frequency  $W_i$  and a dissolving rate  $V_i$  greater than or equal to 95% as that recited, it would be inherent in the detergent base powder of Appel to exhibit the recited characteristic because same detergent composition having the same ingredients, proportions and bulk density have been utilized. Hence, Appel anticipates the claims.

8. Claims 1, 3-8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkinson as applied to claims 2, 9 and 10 above.

Art Unit: 1751

Wilkinson teaches the features as described above. In addition, Wilkinson teaches nonionic, or mixed nonionic/anionic surfactant system which can be formed into a solid particulate which does not cake during storage, which dissolves rapidly and has excellent performance profile (see col. 1, lines 56-60), and where the anionic surfactant is present, the ratio of anionic to nonionic surfactant should be from 1:100 to 1:1 (see col. 2, lines 49-56). Suitable nonionic surfactants include compounds produced by the condensation of alkylene oxide groups with an organic hydrophobic compound (see col. 4, lines 12-20). The anionic surfactants can have an alkali metal cation such as potassium (see col. 5, line 61; col. 6, line 33). Other suitable builders include water-soluble silicates (see col. 9, line 63 to col. 10, line 3). Wilkinson also teaches grinding and sieving agglomerates (see col. 17, lines 30-31). Wilkinson, however, fails to specifically disclose a detergent composition wherein the weight ratio of anionic surfactant to nonionic surfactant is 4:10 or more or 10:0 or less.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the proportions of the anionic and nonionic surfactants of Wilkinson through routine experimentation for best results. As to optimization results, a patent will not be granted based upon the optimization of result effective variables when the optimization is obtained through routine experimentation unless there is a showing of unexpected results which properly rebuts the *prima facie* case of obviousness. See *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). See also *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990), and *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Art Unit: 1751

***Response to Applicants' Arguments***

9. Applicant's arguments filed July 23, 2003 have been fully considered but they are not persuasive.

With respect to Van Dijk, Applicants argue that the presently claimed compositions contain 15% or less by weight of water-soluble inorganic salts such as sodium carbonate as opposed to 15.44% by weight sodium carbonate in the composition of Van Dijk.

A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, see *Titanium Metals Corp. of America v. Banner*, 778F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05I. Applicants have not provided the criticality of their composition having 15% or less of the water-soluble salt as compared to one wherein the amount of water-soluble salt is the same as those of Van Dijk, that is, 15.44 wt%.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 1751

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is (703) 305-3773. The examiner can normally be reached on Mondays-Fridays from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta, can be reached on (703) 308-4708. The fax phone number for this Technology Center is:

(703) 872-9311 - for Official After Final faxes  
(703) 872-9310 - for all other Official faxes.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center receptionist whose telephone number is (703) 308-0661.

October 6, 2003

*Lorna M. Douyon*  
Lorna M. Douyon  
Primary Examiner  
Art Unit 1751